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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/580,041

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Toshinori Moriga

MORIGA2

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EXAMINER

LEONARD, MICHAEL L

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

04/28/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/580,041	Applicant(s) MORIGA ET AL.	
	Examiner MICHAEL LEONARD	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 February 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-21 are rejected under 35 U.S.C. 103 (a) as being unpatentable over U.S. Patent Pub. No. 2002/0101043 to Moriga et al. in view of U.S. Patent Pub. No. 2004/0122145 to Klosowski et al. and U.S. Patent Pub. No. 2003/0232956 to Brinkman.

As to claims 1, 8 Moriga discloses a sealing gasket for closure made of a polyurethane elastomer obtained by reacting a polyisocyanate component having an isocyanate group content of 5 to 38% by weight and an average of 2 to 3 functional groups, obtained by modifying an aliphatic isocyanate and/or an alicyclic isocyanate and a polyol component having a hydroxyl value of 20 to 350 mgKOH/g and an average of 2 to 3 functional groups. Moriga further discloses wherein the sealant is used for a metal closure (Abstract).

Moriga fails to disclose a glycerin fatty acid ester having hydroxyl groups as another reactant.

However, Klosowski discloses adhesion promoters for sealants containing esters, particularly dimerate and trimerate esters, which improve the adhesion of sealants to substrates such as metal when the promoters are added to the adhesive. Klosowski discloses fatty acid esters derived from C3-C24 alcohols and C6-C24 fatty acid compounds (0006-0007) that aid in the adhesion of known sealants such as urethane sealants (0029-0036) to substrates such as glass and metals. Furthermore,

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Brinkman discloses adhesive systems useful for metal substrates that are made from polyisocyanates and polyols, wherein one of the polyols is fatty acid ester such as glycerol stearate, glycerol hydroxystearate, etc. (0026) that are used in place of the petroleum based polyols, in an amount of from 0.5% to 20% based on the weight of total polyols (0035) to provide such compositions that more environmentally friendly to provide adhesives with useful properties (0004).

The amendments to claims 1, 8, and 15 do NOT place the application in condition for allowance because: Applicants' invention can be arrived at solely by selecting from the various choices disclosed by the references. The references highlighted above in combination disclose the three reactive components of instant claims 1, 8, and 15, and further discloses an overlapping amount of the glycerin fatty ester (Brinkman, 0035) that can be used as promote better adhesion as evidenced by Klosowski (0006-0007) and provide final compositions that are more environmentally friendly as evidenced by Brinkman (0004). The various choices are set out in the references as workable and hence no skill in the art is required.

As a result, it would have been prima facie obvious to a person of ordinary skill in the art to incorporate the adhesion promoting fatty acid esters of Klosowski, which as evidenced by Moriga are more environmentally friendly fatty acid esters to Brinkman composition Moriga to promote better adhesion and to provide a safer and a more "green" composition that could be used in the production of metal closures for food containers as disclosed by Moriga (Abstract). A person of ordinary skill in the art would see the benefits of more "green" polyol as well as a better adhesive for metal closures.

As to claims 2-3, 9-10, and 16-17, Moriga discloses isocyanates with uretidone and isocyanurate groups as well as urethane prepolymers that are suitable as the isocyanate component (0031-0033).

As to claim 4-5, 11-12, and 18-19, Moriga discloses a polyol component having a hydroxyl value of 20 to 350 mgKOH/g and an average of 2 to 3 functional groups (Abstract) that is a mixture of a high-molecular weight polyol and a low-molecular weight polyol (0041).

As to claims 6-7, 13-14, and 20-21, Moriga discloses wherein the sealing gasket has a hardness of 10 to 70, a tensile strength of 1 to 40 MPa and a compression set of 0.1 to 60% (0054) and a permanganate consumption of preferably 30 ppm or less (0058).

As to claim 15, Moriga discloses in producing a closure the polyurethane elastomer reaction is allowed to take place at 150 to 240°C for 20 to 200 seconds (0059).

Response to Arguments

Applicant's arguments filed 02/16/2010 have been fully considered but they are not persuasive. Applicants argue that the claimed invention has not been rendered obvious by Moriga ('1043) in view Klosowski ('2145) and Brinkman ('2956) for two reasons.

1) The first being that the combination of references do not disclose or suggest the feature of a "glycerin fatty acid ester having hydroxyl groups wherein

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said glycerin fatty acid ester is 0.1 to 20 parts by weight based on 1000 parts by weight of the polyol component B.

2) Improvement in low swelling with an alcoholic beverage; low absorption of the odor of an alcoholic beverage; toughness; and no yellowing is surprising and unexpected.

In response to issue 1), the combination of references clearly discloses all of the reactive components in the proposed amounts. The first 2 components can be found in the primary reference to Moriga and the third component can be found in both references to Klosowski and Brinkman. The amount of the third component and the reason for adding the third component are clearly laid out in the Klosowski and Brinkman references and have been discussed above. Therefore, all the claimed effects and the reasons for the combination were taught in the prior art and the composition as a whole is not novel.

In response to issue 4), the fact that the applicants found unexpected properties does not show that the composition as a whole is unexpected, especially when considering the combination of references. Furthermore, the applicants failed to provide any data relating to improvement in low swelling with an alcoholic beverage; low absorption of the odor of an alcoholic beverage; toughness; and no yellowing. The Moriga reference clearly defines components 1 and 2 of instant claim 1 as well as the independent claims and combination of secondary references with the reasons stated above clearly suggest to a person of ordinary skill in the art why would include the glycerine fatty acid ester component.

In conclusion, while the applicants' alleged improvement in low swelling with an alcoholic beverage; low absorption of the odor of an alcoholic beverage; toughness; and no yellowing has been noted, it fails to overcome the current prima facie case of obviousness since the selection of the glycerine fatty acid ester component is not unobvious, based on the teachings of Klosowski and (Brinkman, 0035 and 0004) (Klosowski 0006-0007).

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL LEONARD whose telephone number is (571)270-7450. The examiner can normally be reached on Mon-Fri 7:00-4:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Milton Cano can be reached on 571-272-1398. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Milton I. Cano/
Supervisory Patent Examiner, Art Unit 1796

/MICHAEL LEONARD/
Examiner, Art Unit 1796